

THE MICROWAVE SYNDROME*

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A new disease, the microwave syndrome, is recognized. The recent publicity of the radiation of the United States Embassy in Moscow, coupled with the Senate hearings on radiation health and safety, the impact of Canadian proposals to lower their general population nonionizing radiation standard, and the numerous reports on nonionizing radiation appearing in the national media have combined to increase public awareness, interest, and, what is more important, anxieties, about the question of nonionizing radiation.

The setting of standards for maximum exposure limits will not relieve the problem unless, as Morris Shore pointed out, they are supported by public opinion. However, the manner in which public opinion is developed is a very key part of the story.

Standards, of course, have to be based on hard scientific information and not upon emotional appeals developed from the anxieties of those misinformed or incompletely informed about the situation. Any standards based on ill-informed or uninformed public opinion will obviously fall apart like a house built on shifting sands.

I would like to reopen the question of the media approach to this subject. As a matter of fact, Dr. Donald Justesen yesterday made some very pertinent remarks on this very subject and I must agree with what he said. I shall reinforce the statements that he made yesterday.

But even the media themselves recognize these problems. For instance, Robert Clark, who is the executive editor of the *Courier Journal and Times* of Louisville, Ky., quoted Walter Lippman, who more than a half a century ago said "There is everywhere an increasing disillusionment about the press, a growing sense of being baffled and misled." He went on further to say, "The point is that there is deliberate bias, advocacy in the news

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columns, selection of assignment of certain stories and others for political and economic reasons, failure to get both sides of the story, wherever possible. These are evidence of bias and unfairness and must be avoided by any self-respecting, ethical member of the press." Walter Lippman, 50 years ago, I think, was quite cognizant. Perhaps, he was a little bit strong on this, but from time to time, one must, as the press does, overstress a point to get it across.

I would like to compare some of the newspaper reports on the Moscow situation with the actual facts, as reported and developed by the Johns Hopkins report and by my observations and those of others who were in Moscow over a period of time.

News media reporting leaves much to be desired. In the December 20, 1976 issue of the *New Yorker* magazine, a reporter stated that the *Los Angeles Times* quoted Ambassador Stoessel, United States chief of the mission to Moscow at that time, as saying that the risk of microwave radiation was greater for pregnant women and the other possible microwave hazards, including leukemia, skin cancer, psoriasis, cataracts and emotional illnesses. As one who was at that briefing and who incidentally helped to prepare the briefing for the Ambassador, I deny these statements that appeared in the *Los Angeles Times*. I never wrote them and I never heard them at that point in the hearing or at any point in the hearing.

The insinuations and innuendoes by the writer that the Department of State accepted that the microwave radiation of the upper floors of the chancery was considered hazardous were not true. The story as it appeared in the *New Yorker* made it appear as though the reporter was there. He was not. The Johns Hopkins report, of course, does not support the allegations of this particular reporter.

In the editorial section of the *Washington Post* on Tuesday, July 11, 1978, a column by Daniel Greenberg was entitled, "A Microwave Delusion." This editorial was based in part on a telephone interview with me. The writer goes on to say, "But if, as many specialists insist, the radiation is low level and apparently harmless, then it is worth considering how few facts and a lot of hysterical ignorance have acquired an unjustified importance in an international relationship." This is very good reporting.

In contrast to this approach was the article in *Time* magazine of August 28, 1978. Again I was interviewed by telephone for this story. I gave the identical information to *Time* as I had to the syndicated columnist. The

results were quite different. The title of the *Time* story was, "Are Americans Being Zapped?: The Microwave Controversy Generates Demands for Action." The story relates a series of alleged individual experiences and pending lawsuits. *Time* stated, "Investigators claim to have found an unusually high incidence of cancer and blood disorders amongst embassy personnel, as well as a number of birth defects in their offspring." They do not name the investigators, nor do they give any specific data. The subsequently published Johns Hopkins report absolutely refutes every single one of those implications in the magazine story.

Contrast these statements with the painstaking, in-depth study carried out by the Johns Hopkins University School of Public Health and Hygiene for the Department of State. The Hopkins investigators concluded that there is "no convincing evidence discovered that would implicate the exposure to microwave radiation by the personnel in the Moscow embassy in the correlation of any adverse health effects as of the time of that analysis."

Parenthetically, it can be pointed out that more than one third of the study group and more than 52% of the person years involved had had from 10 to 23 years postexposure experience. The numbers are small, but they do not indicate any trend toward late-developing complications.

The *New Yorker* and other reporters have called attention to the fact that two former ambassadors to Moscow have died of malignancies. By implication they blame the microwave radiation. A quick review of the situation in the Moscow embassy points up that less than one third of the total population had ever had any possible exposure to microwave radiation, least of all the ambassadors in question.

In my Senate testimony of June 1977 I stated that prior to June 1975 it was only the west facade above the sixth floor of the chancery that had been exposed to the microwave beam. I made a point of this in my previous discussion on this subject. These two ambassadors each served prior to June of 1975. Their offices were in the southeast corners of the building, far removed from the west facade where the only exposure existed; and they lived in the Spasso House miles away from the chancery. The Spasso House was swept electronically more than once a day, and the only microwaves found were those of the microwave oven in the ambassador's private quarters on the second floor. So that these men had not been exposed to any microwave radiations in Moscow, and the implications and inferences that their deaths were due to this exposure is obviously all wrong.

The Johns Hopkins report specifically states that there were no extraordinary incidences of cancer, brain disorders, or loss of vision in any embassy personnel. While the focus of the Hopkins study was the microwave problem, it did point up that the morbidity and the mortality of the male employees in the Moscow embassy was actually half that of the standard rates in the continental U.S. This, of course, was a tribute to the screening procedures of the Medical Services Office of the Department of State.

Let me go on to quote a few things from the book by Mr. Brodeur, *The Zapping of America*. "Anxiety about the genetic effect of microwaves first came out into the open in December 1971 when the Electromagnetic Radiation Management Advisory Council, a nine-member group that included Dr. Pollack, warned that the consequences of undervaluing or misjudging the biological effects of long-term, low level exposure could become a critical problem for the public health, especially if genetic effects were involved."

Yes, we made that statement. After Mr. Brodeur pointed out that I was a member of the early group who warned the public about the possible consequences of underevaluating the biological effects of the long-term level of radiation, the author proceeds to accuse me of being part of a coverup. I am not sure what I was covering up when I helped make statements of that sort, but, nevertheless, he said that. "It (ERMAC) knew of the 1964 findings of Dr. Lilienfeld and his colleagues at the Johns Hopkins concerning the apparent association between radar exposure and Down's syndrome."

You heard Dr. Charlotte Silverman this morning discuss that. She also pointed out the failure to support these statements in the further evaluation of the data. The author of *The Zapping of America* knew of this, and yet failed to report the second part of the story but only reported the first part. He goes on to say that the types of chromosome aberrations observed in this study are the same as those induced by ionizing radiation in other organisms, including humans. Obviously, no such data were available.

I shall not proceed any more, except to say that the press has the same problem we do with our own medical profession. We have an ethics problem. We have to clean house, and I think the press is going to have to do the same thing with its own. There are good and bad in both professions, and it is of course the millennium if we expect everybody to be perfect.